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10/767,512	01/29/2004	Adiel M. Yoaz	ORCL.P103	5970

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	10/767,512	YOAZ ET AL.
Office Action Summary	Examiner	Art Unit	
	Cam Y T. Truong	2162	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-23</u> is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-23</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>29 January 2004</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☐ All b) ☐ Some * c) ☐ None of:

1. ☐ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>1/29/2004</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-23 are pending in this Office Action.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1, 2, 16-23 are rejected under 35 U.S.C. 102(e) as anticipated by

Tamboli et al (or hereinafter "Tamboli") (US 2004/0230605).

As to claim 1, Tamboli teaches the claimed limitations:

"receiving a request to execute a first function" as receiving a request from

a manager to execute an adapter extract routine for retrieving data in a dynamic

common format (paragraph [0077]);

"executing a second function if the first function is defined to return data in

a first type of data structure" as [paragraph [0077]);

"executing the first function to obtain a collection of data formatted

according to the first type of data structure" as (paragraph [0075; 0076]);

"the second function, when executed, returning formatting information that

indicates an arrangement of fields of data within the first type of data structure;

and organizing the collection of data according to the formatting information

returned by the second function" as (paragraph [0077]).

As to claim 2, Tamboli teaches the claimed limitation "wherein receiving a

request to execute a first function comprises receiving a request that indicates a

data source to be accessed by the first function" as (fig. 1, paragraph [0064]).

As to claim 16, Tamboli teaches the claimed limitations:

"a processing entity; and a memory coupled to the processing entity and

having program code stored therein which, when executed by the processing

entity, causes the processing entity to: receive a request to execute a first

function included in the program code" as (paragraph [0075; 0076]);

"execute a second function included in the program code if the first

function is defined to return data in a first type of data structure" as (paragraph

[0075]);

"execute the first function to obtain a collection of data formatted

according to the first type of data structure; the second function, when executed,

returning formatting information that indicates an arrangement of fields of data

within the first type of data structure; and organize the collection of data

according to the formatting information returned by the second function" as

(paragraphs [0075-0077]).

As to claim 17, Tamboli teaches the claimed limitations "wherein the processing entity comprises a plurality of processors coupled to one another in a network" (paragraph 0084).

As to claim 18, Tamboli teaches the claimed limitation "wherein the memory comprises a plurality of sets of storage devices, each set of storage devices being coupled to at least one of the processors and including at least one non-volatile storage device" as (paragraph [0057]).

Claims 19 and 23 are rejected under the same reason as discussed in claim 10 and 16.

Claim 20 is rejected under the same reason as discussed in claim 17.

Claim 21 is rejected under the same reason as discussed in claim 18.

Claim 22 is rejected under the same reason as discussed in claim 1.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamboli in view of Crisan et al (or hereinafter "Crisan") (US 2003/0191769).

As to claim 3, Tamboli does not explicitly teach the claimed limitation

"wherein receiving a request that indicates a data source comprises receiving a

uniform resource locator (URL) that indicates the data source".

Crisan teaches the function includes a URL (paragraph [0063]).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Crisan's teaching of the function includes a

URL to Tamboli's system in order to provide a machinery for communicating with

the external web service to retrieve data on Internet system.

6.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Tamboli in view of Kleewein et al (or hereinafter "Kleewein") (US 6009428).

As to claim 4, Tamboli does not explicitly teach the claimed limitation

"wherein executing the second function if the first function is defined to return

data in a first type of data structure comprises executing the second function if a

predetermined keyword is specified as a data return type for the first function".

Kleewein teaches executing the creating function mapping when create

function to_pound is specified as a data return type (pounds) (col. 10, lines 40-

50).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Kleewein's teaching of executing the

creating function mapping when create function to_pound is specified as a data

return type (pounds) to Tamboli's system in order to convert a received datatype

of a data to one or more datatypes correctly for transferring to users so that users

can review the retrieved data in their own computer system.

7.   Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Tamboli in view of Srinivasan et al (or hereinafter "Srinivasan") (US

5893108).

As to claim 5, Tamboli does not explicitly teach the claimed limitation

"wherein executing the second function if the first function is defined to return

data in a first type of data structure comprises executing the second function if

the first function is defined to return data in an array of data elements".

Srinivasan teaches executing a function to translate tuples into application

objects (col. 11, lines 11, 20-50).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply to Srinivasan's teaching of executing a

function to translate tuples into application objects Tamboli's system in order to

convert a received data to one or more datatypes correctly for transferring to

users so that users can review the retrieved data in their own computer system.

As to claim 6, Tamboli does not explicitly teach the claimed limitation

teaches the claimed limitation "wherein the data elements in the array

correspond to rows of a database table, respectively".

Srinivasan teaches executing a function to translate tuples into application

objects (col. 11, lines 11, 20-50).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply to Srinivasan's teaching of executing a function to translate tuples into application objects Tamboli's system in order to convert a received data to one or more datatypes correctly for transferring to users so that users can review the retrieved data in their own computer system.

As to claim 7, Tamboli does not explicitly teach the claimed limitation "wherein the formatting information".

Srinivasan teaches executing a function to translate tuples into application objects (col. 11, lines 11, 20-50).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply to Srinivasan's teaching of executing a function to translate tuples into application objects Tamboli's system in order to convert a received data to one or more datatypes correctly for transferring to users so that users can review the retrieved data in their own computer system.

As to claim 8, Tamboli does not explicitly teach the claimed limitation" wherein executing the first function to obtain a collection of data formatted according to the first type of data structure comprises executing the first function to obtain the array of data elements".

Srinivasan teaches executing a function to retrieve tuples from a database (col. 12, lines 11, 30-40).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply to Srinivasan teaches executing a function to retrieve tuples from a database toTamboli's system in order to convert a received data to one or more datatypes correctly for transferring to users so that users can review the retrieved data in their own computer system.

As to claim 9, Tamboli does not explicitly teach the claimed limitation "wherein the formatting information indicates an arrangement of rows and columns of a database table and wherein organizing the collection of data according to the formatting information comprises tabulating the collection of data according to the arrangement of rows and columns".

Srinivasan teaches executing a function to translate tuples into application objects (col. 11, lines 11, 20-50).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply to Srinivasan's teaching of executing a function to translate tuples into application objects Tamboli's system in order to convert a received data to one or more datatypes correctly for transferring to users so that users can review the retrieved data in their own computer system.

8.   Claims 10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamboli in view of Chawla et al (or hereinafter "Chawla") (US 2004/0181537).

As to claim 10, Tamboli teaches the claimed limitations:

receiving a request to execute a first function that returns a predetermined data type, the predetermined data type including an array of aggregate data values, executing the first function to obtain the array of aggregate data values as (paragraph [0073];

executing a second function to obtain formatting information that describes an arrangement of component data values within each of the aggregate data values; returning the array of aggregate data values in a data structure that includes the component data values indicated by the formatting information (paragraphs (paragraph [0075- 0077]).

Tamboli does not explicitly teach the claimed limitation "to obtain the array of aggregate data values; a array of aggregate data values".

Chawla teaches obtain a table that contains records and attributes as an array of aggregate data values (paragraph [0082]).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Chawla's teaching of teaches obtain a table that contains records and attributes to convert a received data to one or more datatypes correctly and quickly for transferring to users so that users can review the retrieved data in their own computer system.

As to claim 12, Tamboli further teaches the claimed limitation "wherein executing the first function to obtain the array of aggregate data values comprises executing the first function before executing the second function" as (paragraph [0077]).

8.   Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tamboli in view of Chawla and further in view of Kleewein et al (or hereinafter "Kleewein") (US 6009428).

As to claim 11, Tamboli teaches the claimed limitation "executing the first function after executing the second function".

Kleewein teaches executing create function mapping after executing creating function TO_Pounds(yen) returns Pounds (col. 10, lines 39-50).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Kleewein's teaching of executing create function mapping after executing creating function TO_Pounds(yen) returns Pounds to Tamboli's system in order to convert a received data type to one or more data types.

9.   Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamboli in view of Chawla and further in view of Vaschillo et al (or hereinafter "Vaschillo") (US 2005/0050068).

As to claim 13, Tamboli does not explicitly teach the claimed limitation "executing the second function to obtain a list of attributes that correspond to the component data values, each of the attribute including a name and a data type".

Vaschillo teaches each column includes a name and type for each attribute, an attribute definition 502 provides the name of the attribute, the type of attribute and a constraint of the attribute. Thus, for each schema 134, a single list 508 maps to multiple attribute definitions 502 (col. 9, lines 40-43).

It would have been obvious to a person of an ordinary skill in the art at the time the invention was made to apply Vaschillo's teaching of each column includes a name and type for each attribute, an attribute definition 502 provides the name of the attribute, the type of attribute and a constraint of the attribute. Thus, for each schema 134, a single list 508 maps to multiple attribute definitions to the admitted prior art of the application in order to retrieve relevant geographical data in a special data format for delivering large amounts of data quickly over Internet or intranet.

As to claim 14, Tamboli teaches the claimed limitation "wherein returning the array of aggregate data values in a data structure that includes the component data values indicated by the formatting information comprises returning each of the aggregate data values as a respective set of the component data values" as (paragraph [0120]).

As to claim 15, Tamboli does not explicitly teach the claimed limitation wherein each of the component data values has the name and data type of the corresponding attribute.

Vaschillo teaches each column includes a name and type for each

attribute, an attribute definition 502 provides the name of the attribute, the type

of attribute and a constraint of the attribute. Thus, for each schema 134, a

single list 508 maps to multiple attribute definitions 502 (col. 9, lines 40-43).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Vaschillo's teaching of each column

includes a name and type for each attribute, an attribute definition 502 provides

the name of the attribute, the type of attribute and a constraint of the attribute.

Thus, for each schema 134, a single list 508 maps to multiple attribute

definitions to Tamboli's system in order to retrieve relevant geographical data in

a special data format for delivering large amounts of data quickly over Internet

or intranet.

9.   Claims 1, 2, 5-10, 14, 16, 17, 19-23 are rejected under 35 U.S.C. 103(a)

as being unpatentable over the admitted prior art of the application in view of

Srinivasan.

As to claim 1, The admitted prior art of the application teaches the claimed

limitations:

"receiving a request to execute a first function" as receiving a user query

to execute the table function (fig. 2, paragraph [0025]) ;

"executing a second function if the first function is defined to return data in

a first type of data structure" as executing specialized functions called table

functions, wherein the table function declared to return static data corresponding

to the query result. The static data is represented as data in a type of the DBMS.

Each specialized function is represented as a second function. Each table

function is represented as a first function (fig. 2, paragraphs [0012-0023];

"executing the first function to obtain a collection of data formatted

according to the first type of data structure" as executing the table function and

returns the query result to the DBMS in the format of the declared type (fig 2).

The admitted prior art of the application does not explicitly teach the

claimed limitations "the second function, when executed, returning formatting

information that indicates an arrangement of fields of data within the first type of

data structure; and organizing the collection of data according to the formatting

information returned by the second function".

Srinivasan teaches the schema mapping module 108, when is executed,

shows a representation of an object-oriented database schema 304 and a

representation of a relational database schema 306. A chema mapping between

the object-oriented database schema 204 and the relational database schema

306 is indicated by arrows 308.   The schema mapping module 108 maps the

relational database schema of RDBMS into the object-oriented schema

associated with the object-oriented DBMS (fig. 3, col. 5, lines 5-15).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Srinivasan's teaching of the schema

mapping module 108, when is executed, shows a representation of an object-

oriented database schema 304 and a representation of a relational database

schema 306. A chema mapping between the object-oriented database schema

204 and the relational database schema 306 is indicated by arrows 308. The schema mapping module 108 maps the relational database schema of RDBMS into the object-oriented schema associated with the object-oriented DBMS to The admitted prior art of the application in order to provide an efficient method for translating tuples retrieved from a relational database to object-oriented objects.

As to claim 2, the admitted prior art of the application teaches the claimed limitation "wherein receiving a request to execute a first function comprises receiving a request that indicates a data source to be accessed by the first function" as (paragraphs [0012-0023].

As to claim 5, the admitted prior art of the application and Srinivasan discloses the claimed limitation subject matter in claim does not explicitly teach the claimed limitation "wherein executing the second function if the first function is defined to return data in a first type of data structure comprises executing the second function if the first function is defined to return data in an array of data elements" as ((col. 3, lines 64-67; col. 4, lines 1-10).

As to claim 6, the admitted prior art of the application teaches the claimed limitation "wherein the data elements in the array correspond to rows of a database table, respectively" as (paragraph [0011]).

As to claim 7, the admitted prior art of the application and Srinivasan disclose the claimed limitation subject matter in claim 1, Srinivasan further teaches the claimed limitation "wherein the formatting information indicates an arrangement of columns within the database table" as (fig. 3).

As to claim 8, the admitted prior art of the application teaches "wherein executing the first function to obtain a collection of data formatted according to the first type of data structure comprises executing the first function to obtain the array of data elements" as (paragraphs [0012-0023].

As to claim 9, the admitted prior art of the application and Srinivasan disclose the claimed limitation subject matter in claim 1, Srinivasan further teach the claimed limitation "wherein the formatting information indicates an arrangement of rows and columns of a database table and wherein organizing the collection of data according to the formatting information comprises tabulating the collection of data according to the arrangement of rows and columns" as (fig. 3).

As to claim 10, the admitted the prior art of the application teaches the claimed limitations:

"receiving a request to execute a first function that returns a predetermined data type, the predetermined data type including an array of

aggregate data values, executing the first function to obtain the array of

aggregate data values" as (fig. 2, paragraphs [0011-0025];

"executing a second function" as executing specialized functions called

table functions, wherein the table function declared to return static data

corresponding to the query result. The static data is represented as data in a

type of the DBMS. Each specialized function is represented as a second

function. Each table function is represented as a first function (fig. 2, paragraphs

[0012-0023].

The admitted prior art of the application does not explicitly teach the

claimed limitations "to obtain formatting information that describes an

arrangement of component data values within each of the aggregate data values;

returning the array of aggregate data values in a data structure that includes the

component data values indicated by the formatting information".

Srinivasan teaches the schema mapping module 108, when is executed,

shows a representation of an object-oriented database schema 304 and a

representation of a relational database schema 306. A chema mapping between

the object-oriented database schema 204 and the relational database schema

306 is indicated by arrows 308. The schema mapping module 108 maps the

relational database schema of RDBMS into the object-oriented schema

associated with the object-oriented DBMS (fig. 3, col. 5, lines 5-15).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Srinivasan's teaching of the schema

mapping module 108, when is executed, shows a representation of an object-

oriented database schema 304 and a representation of a relational database schema 306. A chema mapping between the object-oriented database schema 204 and the relational database schema 306 is indicated by arrows 308. The schema mapping module 108 maps the relational database schema of RDBMS into the object-oriented schema associated with the object-oriented DBMS to The admitted prior art of the application in order to provide an efficient method for translating tuples retrieved from a relational database to object-oriented objects.

As to claim 12, the admitted of the prior art of the application and Srinivasan teaches the claimed limitation subject matter in claim 10, Srinivasan further teaches the claimed limitation "wherein executing the first function to obtain the array of aggregate data values comprises executing the first function before executing the second function" as (col. 5, lines 5-40).

As to claim 14, the admitted of the prior art of the application and Srinivasan teaches the claimed limitation subject matter in claim 10, Srinivasan further teaches the claimed limitation "wherein returning the array of aggregate data values in a data structure that includes the component data values indicated by the formatting information comprises returning each of the aggregate data values as a respective set of the component data values" as (col. 5, lines 5-40).

As to claim 16, the admitted of the prior art of application teaches the claimed limitation "a processing entity; and a memory coupled to the processing entity and having program code stored therein which, when executed by the processing entity, causes the processing entity to: receive a request to execute a first function included in the program code" as (paragraphs [0012-0023]);

"execute a second function included in the program code if the first function is defined to return data in a first type of data structure" as executing specialized functions called table functions, wherein the table function declared to return static data corresponding to the query result. The static data is represented as data in a type of the DBMS. Each specialized function is represented as a second function. Each table function is represented as a first function (fig. 2, paragraphs [0012-0023];

"execute the first function to obtain a collection of data formatted according to the first type of data structure" as executing the table function and returns the query result to the DBMS in the format of the declared type (fig 2).

The admitted prior art of the application does not explicitly teach the claimed limitations "the second function, when executed, returning formatting information that indicates an arrangement of fields of data within the first type of data structure; and organizing the collection of data according to the formatting information returned by the second function".

Srinivasan teaches the schema mapping module 108, when is executed, shows a representation of an object-oriented database schema 304 and a representation of a relational database schema 306. A chema mapping between

the object-oriented database schema 204 and the relational database schema

306 is indicated by arrows 308. The schema mapping module 108 maps the

relational database schema of RDBMS into the object-oriented schema

associated with the object-oriented DBMS (fig. 3, col. 5, lines 5-15).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Srinivasan's teaching of the schema

mapping module 108, when is executed, shows a representation of an object-

oriented database schema 304 and a representation of a relational database

schema 306. A chema mapping between the object-oriented database schema

204 and the relational database schema 306 is indicated by arrows 308. The

schema mapping module 108 maps the relational database schema of RDBMS

into the object-oriented schema associated with the object-oriented DBMS to The

admitted prior art of the application in order to provide a efficient method for

translating tuples retrieved from a relational database to object-oriented objects.

As to claim 17, the admitted of the prior art of application and Srinivasan

disclose the claimed limitation subject matter in claim 16, Srinivasan further

teaches "wherein the processing entity comprises a plurality of processors

coupled to one another in a network" (col. 4, lines 29-45).

As to claim 18, the admitted of the prior art of application and Srinivasan

disclose the claimed limitation subject matter in claim 16, Srinivasan further

teaches "wherein the memory comprises a plurality of sets of storage devices,

each set of storage devices being coupled to at least one of the processors and

including at least one non-volatile storage device" as (col. 4, lines 29-45).

       Claim 19 and 23 are rejected under the same reason as discussed in

claims 16 and 10.

       Claim 20 is rejected under the same reason as discussed in claim 17.

       Claim 21 is rejected under the same reason as discussed in claim 18.

       Claim 22 is rejected under the same reason as discussed in claim 1.

10.   Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over

the admitted prior art of the application in view of Srinivasan and further in view

of Crisan.

       As to claim 3, The admitted prior art of the application does not explicitly

teach the claimed limitation "wherein receiving a request that indicates a data

source comprises receiving a uniform resource locator (URL) that indicates the

data source".

       Crisan teaches the function includes a URL (paragraph [0063]).

       It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Crisan's teaching of the function includes a

URL to the admitted prior art of the application in order to provide a machinery for

communicating with the external web service to retrieve data on Internet system.

11.   Claims 4 and 11 are rejected under 35 U.S.C. 103(a) as being

unpatentable over the admitted prior art of the application in view of Srinivasan

and further in view of Kleewein et al (or hereinafter "Kleewein") (US 6009428).

As to claim 4, the admitted prior art of the application does not explicitly

teach the claimed limitation "wherein executing the second function if the first

function is defined to return data in a first type of data structure comprises

executing the second function if a predetermined keyword is specified as a data

return type for the first function".

Kleewein teaches executing the creating function mapping when create

function to_pound is secified as a data return type (pounds) (col. 10, lines 40-50).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Kleewein's teaching of executing the

creating function mapping when create function to_pound is secified as a data

return type (pounds) to over the admitted prior art of the application's system in

order to convert a received datatype of a data to one or more datatypes correctly

for transferring to users so that users can review the retrieved data in their own

computer system.

As to claim 11, the admitted of the prior art of the application and

Srinivasan teaches the claimed limitation subject matter in claim 10, except the

claimed limitation "executing the first function after executing the second

function".

Kleewein teaches executing create function mapping after executing

creating function TO_Ponunds(yen) returns Pounds (col. 10, lines 39-50).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Kleewein's teaching of executing create

function mapping after executing creating function TO_Pounds(yen) returns

Pounds to the admitted of the prior art of the application in order to convert a

received data type to one or more data types.

12.　　Claims 13 & 15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over the admitted prior art of the application in view of Srinivasan

and further in view of Vaschillo.

As to claim 13, the admitted of the prior art of the application and

Srinivasan teaches the claimed limitation subject matter in claim 10, except the

claimed limitation "executing the second function to obtain a list of attributes that

correspond to the component data values, each of the attribute including a name

and a data type".

Vaschillo teaches each column includes a name and type for each

attribute, an attribute definition 502 provides the name of the attribute, the type

of attribute and a constraint of the attribute. Thus, for each schema 134, a

single list 508 maps to multiple attribute definitions 502 (col. 9, lines 40-43).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Vaschillo's teaching of each column

includes a name and type for each attribute, an attribute definition 502 provides

the name of the attribute, the type of attribute and a constraint of the attribute.

Thus, for each schema 134, a single list 508 maps to multiple attribute

definitions to the admitted prior art of the application in order to retrieve relevant

geographical data in a special data format for delivering large amounts of data

quickly over Internet or intranet.

As to claim 15, the admitted of the prior art of the application and

Srinivasan teaches the claimed limitation subject matter in claim 10, except the

claimed limitation wherein each of the component data values has the name and

data type of the corresponding attribute.

Vaschillo teaches each column includes a name and type for each

attribute, an attribute definition 502 provides the name of the attribute, the type

of attribute and a constraint of the attribute. Thus, for each schema 134, a

single list 508 maps to multiple attribute definitions 502 (col. 9, lines 40-43).

It would have been obvious to a person of an ordinary skill in the art at the

time the invention was made to apply Vaschillo's teaching of each column

includes a name and type for each attribute, an attribute definition 502 provides

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Thus, for each schema 134, a single list 508 maps to multiple attribute

definitions to the admitted prior art of the application in order to retrieve relevant

geographical data in a special data format for delivering large amounts of data

quickly over Internet or intranet.

Conclusion

13.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dettinger et al (US 2004/0254924).

Contact Information

14.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cam Y T. Truong whose telephone number is (571) 272-4042. The examiner can normally be reached on Monday to Firday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Cam Y Truong
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Art Unit 2162
9/25/2006